

Application No. 10/705,477

Reply to Office Action

REMARKS

Reconsideration of the pending application is respectfully requested in view of the foregoing amendments and the following remarks.

Status of the Application

Claims 1-9 are currently pending. Claims 1-20 are currently amended, with new claims 8-20 being presented. All of the amendments are based on the specification and claims as originally filed. No new matter is added by way of these amendments.

Summary of the Office Action

Claims 5 and 6 are objected to as being dependent on a rejected base claim, but would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims.

Claims 1-4 and 7 are rejected under 35 U.S.C. § 103(a) as being obvious over EP Patent 0 901 040 to Loccufier et al. ("the '040 patent").

The Office Action asserts that the '040 patent teaches a substantially light-insensitive monosheet thermographic recording material comprising a support and a thermographic element which contains a substantially light-insensitive organic silver salt, an organic reducing agent, a binder and a 3-mercapto-benzothiazole compound having a -SO₂NH-phenyl group with a halogen substituent attached thereto (see page 4, lines 15-25).

It is said that Applicants' disclosure of an optionally alkyl or alkoxy-substituted -SO₂NH-phenyl group fails to exclude other substituents (e.g., chlorine) on the SO₂NH-group. The '040 patent also recognizes the advantages of employing prior art compounds such as substituted benzotriazoles in such recording materials (see page 2, lines 25 and 26).

Discussion

At the outset, Applicants request confirmation from the examiner that the formal claim of priority and priority document were safely received, as such confirmation is not included in the Office Action. Both documents were forwarded to the U.S. Patent and Trademark Office with the application on December 8, 2003.

Applicants have addressed the objection to claims 5 and 6 by amendment. Withdrawal of this objection, therefore, is respectfully solicited.

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Turing to the substantive rejection, Applicants submit that the subject matter described by the pending claims is patentable over the '040 patent.

With regard to claim 1, Applicants submit that the subject matter described therein is not disclosed or taught by the '040 patent, and what is taught therein would not motivate one skilled in the art to prepare the claimed subject matter. For example, claim 1 requires, among other limitations, R⁵ to be an aryl group or an optionally substituted alkyl group (as described in connection with Formula I), or a methoxy group (as set forth in the 2-mercapto-benzothiazole compound described therein). This is not only distinct from the chlorine-substituted compound of the '040 patent relied upon by the Office Action, but the disclosure of this compound, without more, fails to provide any motivation to one skilled in the art to modify the prior art compound and use this modified compound to provide a substantially light-insensitive thermographic material as claimed.

Moreover, the prior art chlorine-substituted compound of the '040 patent (MBC-C2) was analyzed by Applicants, with the results set forth in the specification. Comparative Example 4 (MBC-C2) shows that an illustrative substantially light-insensitive thermographic recording material, in which the thermosensitive element thereof contains MBC-C2, exhibits relatively poor archivability (e.g., a much greater relative shift in CIELAB b* values after 3 days at 57°C and 34% humidity in the dark) relative to substantially light-insensitive thermographic recording materials of the present invention.

Thus, even if one were to assume that the '040 patent taught the use of MBC-C2 and other 2-mercaptobenzothiazole compounds, it cannot be reasonably disputed that the '040 patent teaches away from the use of such compounds due to their adverse effect on image tone. Because of this adverse effect, one skilled in the art would not be motivated to prepare the claimed substantially light-insensitive thermographic recording materials which include, among other limitations, certain 2-mercaptobenzothiazole compounds.

For these reasons, it is respectfully requested that the rejection of claim 1, and those claims dependent thereon, should be withdrawn.

Claim 2 also describes patentable subject matter, and should be allowed over the '040 patent. The '040 patent does not contain any teaching that would motivate one skilled in the art to provide substantially light-insensitive thermographic recording materials as claimed, these material including, among other limitations, 2-mercaptobenzothiazole compounds substituted by an alkyl, an aryl, an alkoxy, a nitro, a cyano or an acyl group or a halogen

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atom. Again, the teaching of the '040 patent is limited to a disclosure of MBT-C2, without more.

Withdrawal of the rejection of claim 2, and those claims dependent thereon, is respectfully requested.

Conclusion

The amendments set forth herein are presented in order to sharpen the claim language prior to examination, and introduce new claims into the application. No new matter has been introduced into the application by way of this amendment.

As applicant believes the application is in proper condition for allowance, the examiner is respectfully requested to pass the application to issue. If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned attorney.

Respectfully submitted,



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